

Work Order ID 96747-1

Friday, February 01, 2013 9:14:15 AM

96747

Page 1

Item ID: D3943-041

Accept

N9000040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Ground Handling Crank Assembly

Start Date: 2/1/2013 Start Qty: 6.00

6

Cust Item ID:

Required Date: 2/15/2013 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: MF

Date: 13-02-01

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3943

E

100

0.00

100

Purchasing

Purchasing

Memo

0.00

Issue P/O:

19004

Purchase Part Number: 8143919

Supplier: Princess Auto

Certificate of conformity is required

Description: 4000 lbs lever chain hoist

CL 13/02/01 (6)

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Packaging

Memo

0.00

Ensure material certification is attached

13/2/13 (2)

Work Order ID 96747

Friday, February 01, 2013 9:14:15 AM

96747

Page 2

Item ID: D3943-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Ground Handling Crank Assembly

Start Date: 2/1/2013

Start Qty: 6.00

6

Cust Item ID:

Required Date: 2/15/2013

Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.00

Quality Control

130

0.00

130

Large Fab

Memo

0.00

Large Fab

1-Disassemble chain host as per dwg

2-Drill handle ass'y (D3943-051) as per dwg

*

6

13-4-11

Work Order ID 96747

Friday, February 01, 2013 9:14:15 AM

96747

Page 3

Item ID:	D3943-041	Accept	*N900040100*	Setup	Start	*NS1*
Revision ID:					Stop	*NS2*
Item Name:	Ground Handling Crank Assembly					
Start Date:	2/1/2013	Start Qty:	6.00	Cust Item ID:		
Required Date:	2/15/2013	Req'd Qty:	6.00	Customer:		
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:		Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
131		0.00							
131									
Large Fab									
Large Fab	Memo	0.00							
	Using tool DT9854 compress flange on brake/clutch cover so that there is minimal "slop" in the chain hoist handle.								
140	QC5- Inspect part completeness to step on W/O	0.00							
140									
QC									
Quality Control	Memo	0.00							
180	Pick Kit	0.00							
180									
Packaging									
Packaging	Memo	0.00							

CL 13-4-11

DAS
16
9-22 13/6/11

(16)

(6) EL 13-4-11

Work Order ID 96747

96747

Page 4

Friday, February 01, 2013 9:14:15 AM

Item ID: D3943-041 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Ground Handlling Crank Assembly
 Start Date: 2/1/2013 Start Qty: 6.00 *6* Cust Item ID:
 Required Date: 2/15/2013 Req'd Qty: 6.00 *6* Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

190

190

Large Fab

Large Fab

Memo

1-Assemble as per dwg
 (assy landyard CBL-1240 to CBL-460)
 2- touch up with paint if necessary

0.00

Remove brake/clutch cover (under handle) and apply LPS 3 to entire mechanism
 and brake/clutch cover so that a seal will be created when the cover is reinstalled
 Reinstall brake/clutch cover and top gear
 Apply LPS 3 to all surfaces that will be covered when the handle is reinstalled

0.00

191

191

Large Fab

Large Fab

Memo

Remove gear assembly cover (underside of chain hoist) and add enough general
 duty grease to cover entire gear assembly.
 Apply LPS 3 to entire gear assembly and gear assembly cover so that a seal will
 be created when the cover is reinstalled
 Reinstall gear assembly cover

0.00

EL 13-4-15

6x

3/24/08

EL 13-4-15

Work Order ID 96747

Friday, February 01, 2013 9:14:15 AM

96747

Page 5

Item ID: D3943-041 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Ground Handling Crank Assembly
 Start Date: 2/1/2013 Start Qty: 6.00 *6* Cust Item ID:
 Required Date: 2/15/2013 Req'd Qty: 6.00 *6* Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	QC5- Inspect part completeness to step on W/O	0.00							
200									
QC	Memo	0.00							
Quality Control	1-Calibrate and tag as per dwg and QSI 008 4.4 ***Calibration Cert. filled out***								
210	Identify as per dwg & Stock Location:	0.00							
210									
Packaging	Memo	0.00							
Packaging									
220	QC21- Final Inspection - Work Order Release	0.00							
220									
QC	Memo	0.00							
Quality Control									

13/04/15 (DAS 16 8-89) 13.04.15 (DAS 09 2-89) 6

CALIBRATION
 ID: D3943-041 B96747
 BY: PD/S DATE: 13/04/15
 DUE: 1 year of first use

PPP90118 1x
 PPP94174 1x
 PPP96441 1x
 PPP97569 1x
 PPP91356 2x

6x SP
 13-4-15
 13/4/15 J
 MF
 13-4-15

Picklist Print

Friday, February 01, 2013 9:14:13 AM

Page 1

Work Order ID: 96747

Parent Item: D3943-041

Parent Item Name: Ground Handling Crank Assembly

Start Date: 2/1/2013

Required Date: 2/15/2013

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A New Issue 09-06-02 EC Verified By: JLM IPP RevB: add DEO DD 09.11.18
verified by:JLM IPP Rev:C as per dwg REV.C DD 10.02.22 verified by:EC IPP
REV:D 11.08.16 AS PER REV.E DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4405-1 Eye and Fork Swivel		Manufactured	No			180	Each	16.0000	1	6		13-4-15	
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				st376		16							
				70986		5							
				84352		3							
				90214		2							
				91963		6							
8143919 Lever Chain Hoist		Purchased	No			110	Each	0.0000	1	6		96747 12-24	
D3943-051 Handle Assembly		Manufactured	No			180	Each	0.0000	1	6		13-4-15	
D3943-053 Chain Assembly		Manufactured	No			180	Each	0.0000	1	6		13-4-15	
D3943-3 Handle Extension		Manufactured	No			180	Each	11.0000	1	6		13-4-8	
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				ST075		6							
				91864		6							
				WA001		5							
				90004		5							
CBL-1240 Cable		Purchased	No			180	f	1,139.5655	1	6		13/04/08	
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				GA		1139.565534							
				113565		3.911789							
				119690		387.00006							
				122190		248.653685							
				123283		500							

Picklist Print

Friday, February 01, 2013 9:14:14 AM

Page 2

Work Order ID: 96747

Parent Item: D3943-041

Parent Item Name: Ground Handling Crank Assembly

CBL-460 Purchased No
Loop Sleeve

Location
GA
123283
124272
124336

180 Each 783.0000 2

Loc Qty Loc Code
783
21
262
500

12

Required Date: 2/15/2013

Required Qty: 6.00

13/04/08

D3585-1 Manufactured No
Set Screw

Location
GA
55705

180 Each 56.0000 1

Loc Qty Loc Code
56
56

6

13-4-11

D3949-041 Manufactured No
Remove before Flight Flag Assembly

Location
ST494
90040

180 Each 10.0000 1

Loc Qty Loc Code
10
10

6

13/04/08

B85227 (4X)

D3954-7 Manufactured No
Ratchet Lug

Location
ST077
84942
91943

180 Each 12.0000 1

Loc Qty Loc Code
12
4
8

6

13-4-8

AN5-11A Purchased No
Bolt

Location
ST362
123533

180 Each 299.0000 1

Loc Qty Loc Code
299
299

6

13-4-8

AN960-516 NAS1149F0563P Purchased No
WASHER

Location
ST504
110098

180 Each 68.0000 1

Loc Qty Loc Code
68
68

6

13-4-8

M121350x6

Friday, February 01, 2013 9:14:14 AM

Shop Packet Print

Page 2

Picklist Print

Friday, February 01, 2013 9:14:14 AM

Page 3

Work Order ID: 96747
 Parent Item: D3943-041
 Parent Item Name: Ground Handling Crank Assembly

Start Date: 2/1/2013 Required Date: 2/15/2013
 Start Qty: 6.00 Required Qty: 6.00

MS21042L5 Purchased No

180 Each 1,214.0000 1 6

Q 13-4-8

Nut

Location Loc Qty Loc Code

ST314 514
 108827 4
 116548 43
 119109 20
 121652 12
 122452 423
 2937 12

ST506 700
 123900 700

S1475 Purchased No

180 Each 22.0000 1 6

Q 13-4-8

SPRING

Location Loc Qty Loc Code

ST392 22
 117812 2
 123641 20

3408A59 Purchased No

180 Each 5.0000 1 6

Q 13-4-8

BALL PLUNGER

M125264X1

Location Loc Qty Loc Code

ST397 5
 122028 5

HX-15 Purchased No

180 Each 61.0000 1 6

Q 13-4-8

1/4-20 UNCx3/4 S.H.C.S.

Location Loc Qty Loc Code

ST285 61
 114383 17
 117865 44

Friday, February 01, 2013 9:14:14 AM

Shop Packet Print

Page 3

Picklist Print

Friday, February 01, 2013 9:14:14 AM

Page 4

Work Order ID: 96747

Parent Item: D3943-041

Parent Item Name: Ground Handling Crank Assembly

Start Date: 2/1/2013

Required Date: 2/15/2013

Start Qty: 6.00

Required Qty: 6.00

HX-16

Purchased

No

180

Each

191.0000

3

18

EL 13-4-8

Location

Loc Qty

Loc Code

ST285

191

113771

56

117346

85

117865

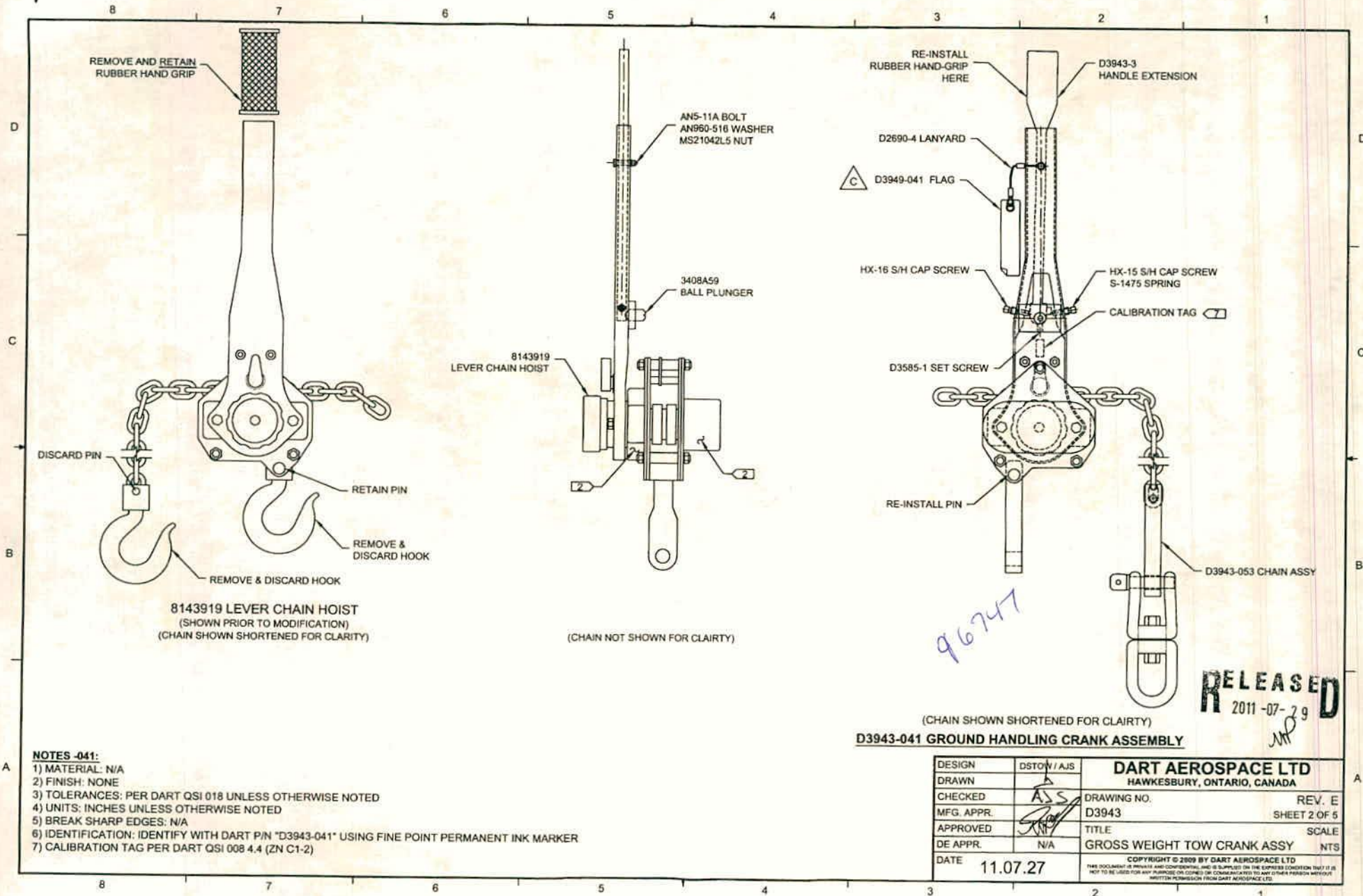
50

6

ITEM No.	QTY -041	QTY -051	QTY -053	PART NUMBER	DESCRIPTION	PREFERRED SUPPLIER
1	X			D3943-041	GROUND HANDLING CRANK ASSEMBLY	
5	1	X		D3943-051	HANDLE ASSEMBLY	
6	1		X	D3943-053	CHAIN ASSEMBLY	
11		1		D3943-1	HANDLE	M/F HANDLE FROM DIS-ASSEMBLED ITEM 39
12	1			D3943-3	HANDLE EXTENSION	
13		1		D3943-5	PLATE	
14		2		D3943-7	STUD	
15			1	D3943-9	CHAIN	USE CHAIN SUPPLIED WITH ITEM 39
16			1	D4405-1	EYE AND FORK SWIVEL	
21	1			D2690-4	LANYARD	
22	1			D3585-1	SET SCREW	
23	1			D3949-041	REMOVE BEFORE FLIGHT FLAG	
24			1	D3954-5	CHAIN LUG	
25	1			D3954-7	RATCHET LUG	
26			1	D3954-9	GWT CHAIN PIN	
31	1			AN5-11A	BOLT	
32	1			AN960-516	WASHER	
33	1			MS21042L5	NUT	
39	1			8143919	LEVER CHAIN HOIST (POWER FIST)	PRINCESS AUTO / 4000 lbs CAPACITY
51	1			S-1475	SPRING	REID SUPPLY
52	1			3408A59	BALL PLUNGER	McMASTER CARR
53	1			HX-15	SOCKET HEAD CAP SCREW 1/4-20 UNC X 0.75 LG	HASKINS
54	1			HX-16	SOCKET HEAD CAP SCREW 1/4-20 UNC X 1.0 LG	HASKINS

E	CHANGED D3945-3 MAT'L TO SS (B8-5); FINISH NOW "NONE" (A7-5); TAP DRILL FOR 1/4-20 UNF-2B WAS PILOT HOLE NOTE (B1-5). PER PAR11-113.	MB	11.07.27
D	SHT 1 PL, ITEMS 51-54 RENUMBERED SEE PREV. REV. FOR DETAILS, ITEM 16 ADDED (VIEWS UPDATED). SHT 2 ZN D3 FLAG RELOCATED. SHT 3 ZONE D3, Ø0.12 HOLE DELETED. (SEE NCR 11-495)	AJS	11.05.16
C	RMV FINISH -041 (ZN A8-2). ADD NEW FINISH -051/-053/-1/-3 (A8-3/-4/-5). ADD CALIBRATION (A8-2). (1) HX-16 WAS HX-15 (B3-1, C3-1). PAR 10-001	CP	10.01.26
B	SHT 1 PL, ITEM 31 WAS AN4-10A, ITEM 32 WAS AN960-416, ITEM 33 WAS MS21042-4, ITEM 43 WAS 0.75 LG. SHEETS 2 - 5 NOTES: FINISH FOR ALL COMPONENTS NOW YELLOW SPRAY PAINT.	AJS	09.10.15
A	NEW ISSUE	AJS	09.05.13
REV.	DESCRIPTION	BY	DATE
DESIGN	DSTOW / AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN		DRAWING NO.	REV. E
CHECKED	ASS	D3943	SHEET 1 OF 5
MFG. APPR.		TITLE	SCALE
APPROVED		GROSS WEIGHT TOW CRANK ASSY	NTS
DE APPR.	N/A	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
DATE	11.07.27	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMBINED WITH ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED
2011-07-29



D3943-1 HANDLE

2 PL

9.75

2.00

Ø0.31
THRUD3943-7 STUD
2 PLTHREAD $\frac{1}{4}$ -20 UNC-2B
THRUVIEW A-A
(SCALE 2X) BS-39.38
REF

2 PL

A B1-3

D3943-5 PLATE

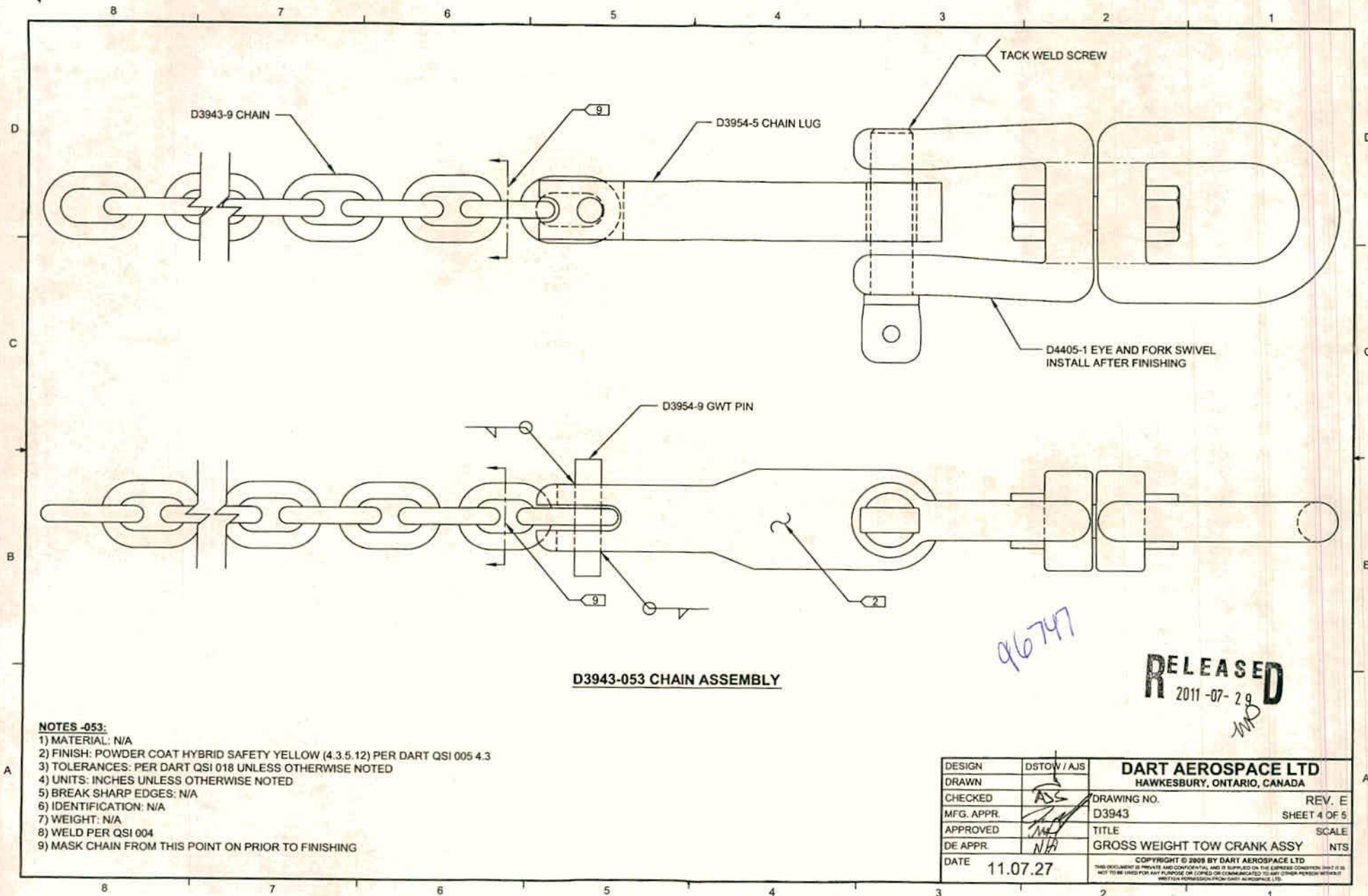
D3943-051 HANDLE ASSEMBLY**NOTES -051:**

- 1) MATERIAL : N/A
- 2) FINISH: POWDER COAT HYBRID SAFETY YELLOW (4.3.5.12) PER DART QSI 005 4.3
- 3) TOLERANCES: X.XX DIMENSIONS +/- 0.06 ALL OTHERS
PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) MASK ALL THREADS PRIOR TO FINISHING

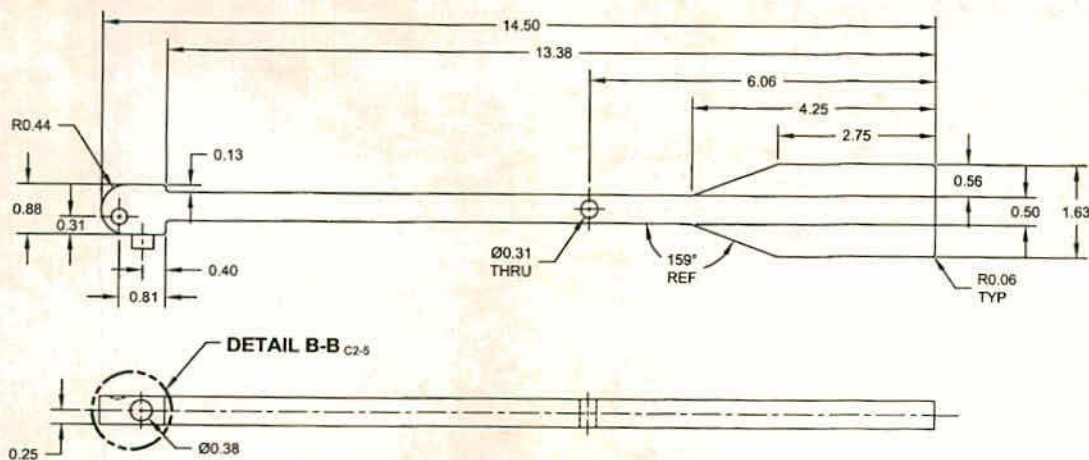
DESIGN	DSTOW/AJS	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	ASS	DRAWING NO.	REV. E
MFG. APPR.		D3943	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.	N/A	GROSS WEIGHT TOW CRANK ASSY	NTS
DATE	11.07.27	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

96747

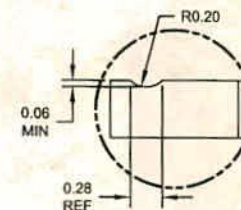
RELEASED
2011-07-28



8 7 6 5 4 3 2 1



D3943-3 HANDLE EXTENSION



DETAIL B-B C7.5
(DIMPLE DETAIL)
(SCALE 2X)

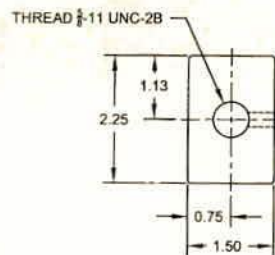
NOTES:

1) MATERIAL -3: AISI 304/316 STAINLESS STEEL SHEET
ANNEALED 2B FINISH PER MIL-S-5059
OR AMS 5513 (304) OR AMS 5524 (316)
OR ASTM A240 OR ASME SA240
REF DART SPEC M304S
OR:
AISI 303 STAINLESS STEEL SHEET
ANNEALED 2B FINISH PER MIL-S-5059
ASTM A240 OR ASME SA240
REF DART SPEC M303S

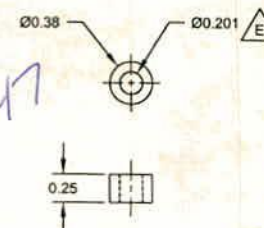
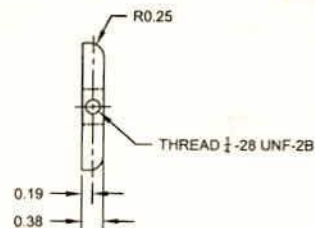
-5: MILD STEEL, SHEET
AISI 1010-1025 OR ASTM A36/A366/A1008
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-S
OR:
MILD STEEL, BAR
AISI 1010-1025 OR ASTM A36/A366/A569/A570
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-B

-7: MILD STEEL, ROUND BAR
AISI 1018-1025
PER MIL-S-7097
REF DART SPEC M1018-R

2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A



D3943-5 PLATE



D3943-7 STUD
(SCALE 2X)

RELEASED
2011-07-28

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3943	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		GROSS WEIGHT TOW CRANK ASSY	NTS
DATE	11.07.27	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

DART
aerospaceDart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053**PURCHASE ORDER**

Purchase Order ID PO19004

Purchase Order Date 2/01/13

PO Print Date 2/01/13

Page Number 1 of 1

Order From :

VC-PR1001

PRINCESS AUTO LTD.
P.O. BOX 1005
WINNIPEG, MB R3C 2W7
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

613 247 1651

613 247 1657

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

Ship To :

DART AEROSPACE LTD 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA**FAXED**
613/632/1053

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	8143919	Lever Chain Hoist	2/06/13 Yes	6.00 Each	FedEx PI collect	\$159.9900	\$959.94

Special AS PER DWG D3943 REV. E
B96747
PRINCESS AUTO P/N: 8143919

PO Total:

\$959.94

CERTIFICATE OF CONFORMITY
REQ'D UPON DELIVERY

Change Nbr:

1

Change Date: 2/01/13

No substitution or deviation without
consent.

Certificate of Conformity or Material

Certification required YES NO

PARCEL PACKING LIST

Page

1

From

E-FULFILLMENT CENTRE
8620 ESCARPMENT WAY
MILTON ONTARIO
L9T 0M1

To

BOMBARDIER AERONAUTIQUE
1270 Aberdeen St

Hawkesbury ON
K6A 1K7 CAN
613-632-9577

Order Number 000814160010000
Parcel Weight 60.780

Parcel Number 02773642
PP#: 106348

ASCENT Parcel #

BOSS Parcel #



PUROLATOR

Container: EXL

Item	Description	Qty Shipped
8143919	HOIST CHAIN 2 TON LEVER	NON-001-12 2

***** THIS IS NOT AN INVOICE *****

* Thank you for your order - shipping status is available at princessauto.com *

* Questions? Comments? 1-800-665-8685 *

* Merci d'avoir passé votre commande chez Princess Auto! *

* Contactez-nous: 1-800-665-8685 *

* Vous pouvez utiliser votre numéro de commande ou les 4 derniers *

* chiffres de votre numéro de téléphone pour faire un suivit de votre colis. *

INTERNAL CALIBRATION CERTIFICATE

Instrument #	Description	Serial #
D3943-041	Ground Handling Crank Assembly	B96747

Calibrated by	Date of calibration	Calibrated with	Due	Certificate #
PD / ED	April 12th, 2013			

New tool	Disposed	In Repair	On Hold	Being Calibrated

Employee	Department	Comments:
N/A	N/A	MUST BE CALIBRATED WITH IN 1 YEAR OF PURCHASE OR FIRST OPERATION

Spec.	Tolerance is + /-	Result	Pass Fail
3500LBS	3500-3700LBS	3600LBS	PASS

Entered By:
Eric Downing QC Corrdinator

DAS
16
9/25

13/07/15